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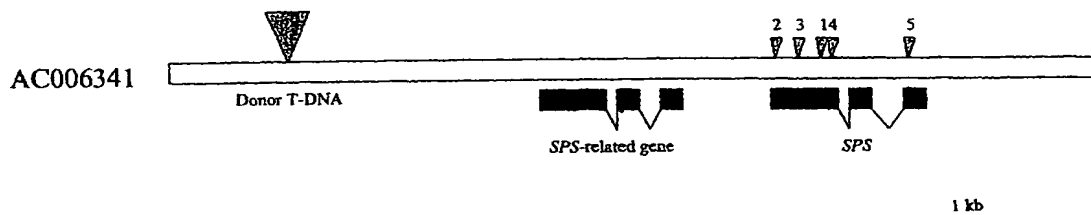
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(54) Title: GENE CONTROLLING SHOOT BRANCHING IN PLANTS

(57) **Abstract:** The invention relates to a gene that encodes a cytokinin-metabolizing enzyme, designated SPS, that has been isolated from an *Arabidopsis* mutant, *sps*. The *sps* mutant exhibits an abnormal shoot-branching pattern and developmental program. The SPS gene has the nucleotide sequence of SEQ ID NO: 1. Also disclosed are methods for isolating a plant gene that encodes a cytokinin-metabolizing enzyme. Further, the invention includes novel plants transformed with the SPS gene operatively linked to a plant-active promoter as well as methods for altering growth or development of plants containing an SPS gene.

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